XI. THE NORTH AMERICAN TINGITIDÆ (HETEROPTERA) DESCRIBED BY STÅL.

By Carl J. Drake.

(Plate XXXIV.)

Fourteen species of *Tingitidæ* described by Stål have been recorded from North America and the West Indies. Of this number three are synonyms, while a West Indian species described by Uhler has been wrongly determined by various workers and placed as a synonym of a species described by Stål from South America. This latter species from South America, *Corythaica monacha* Stål, has not been taken in the West Indies, although thus recorded in the literature.

The Mexican and Central American *Tingitidæ* described by Stål, either the types or specimens corresponding with the types, have been very carefully figured by Champion. These species may be readily determined by means of Champion's figures and notes and the descriptions given by Stål.

There has been some difficulty in arriving at positive conclusions as to some of Stål's species occurring north of Mexico, especially in the genus *Melanorhopola*. Through the generous coöperation of Dr. W. J. Holland, Director of the Carnegie Museum, and of Dr. Yngve Sjöstedt, Intendent of the Naturhistoriska Riksmuseet at Stockholm, the services of Madame Thérèse Ekblom, a very competent artist, have been secured to figure the types of certain species described by Stål occurring north of Mexico.

1. **Monanthia monotropidia** (Stål).

Monanthia (*Physatocheila*) *monotropidia* Stål, Rio Hemip., I, 1860, p. 63 (Rio Janeiro, ♀; Mus. Holm. et Stål).

This is a common neotropical tingitid. Champion, *Biol. Centr.-Amer., Rhynch.*, Vol. II, 1898, p. 47, Pl. III, figs. 24, 24a, and 24b, figures a specimen from Chacoj, Guatemala, and states that he had examined the type.

2. **Teleonemia belfragii** Stål.

Teleonemia (*Teleonemia*) *belfragii* STÅL, Enum. Hemip., III, 1873, p. 132 (Texas, ♀; Mus. Holm.).

The type of this species has been figured by Champion, *Trans. Ent. Soc. Lond.*, 1898, p. 62, Pl. III, fig. 8. It is a common species in the southern United States and breeds upon the French Mulberry, *Callicarpa americana* L.

3. **Teleonemia scrupulosa** Stål.

Teleonemia (*Teleonemia*) *scrupulosa* STÅL, Enum. Hemip., III, 1873, p. 132 (Bogotá, Rio Janeiro, ♂, ♀; Mus. Holm.).

Champion, *Biol. Centr.-Amer., Rhynch.*, Vol. II, 1898, p. 40, Pl. III, figs. 12 and 12a, published notes on the types and numerous specimens from Central America and figured a specimen from Orizaba, Mexico. *T. scupulosa* is very widely distributed, occurring in the southern United States, Mexico, Central America, the West Indies, and South America.

4. **Melanorhopola clavata** Stål. (Pl. XXXIV, fig. b, ♀; fig. a, *lurida* Stål, ♂; fig. c. *uniformis* Stål,

Tingis (*Melanorhopola*) *clavata* STÅL, Enum. Hemip., III, 1873, p. 130 (New York, Wisconsin, ♀; Mus. Holm.).

Tingis (*Melanorhopola*) *lurida* STÅL, Enum. Hemip., III, 1873, p. 131 (Illinois, ♂; Mus. Holm.).

Tingis (*Melanorhopola*) *uniformis* STÅL, Enum. Hemip.. III, 1873, p. 131 (Illinois, ♀; Mus. Holm.).

Stål's types of these three forms are figured on Pl. XXXIV. Numerous specimens are at hand from Colorado, Iowa, Illinois, New York, and other states. The sexual dimorphism of the antennæ and the difference between the long- and short-winged forms probably accounts for the synonomy of *clavata* (♀) and *lurida* (♂). The third segment of the antennæ is only slightly clavate (varying slightly in some specimens) in the male (Plate XXXIV, fig. a) and, as a rule, it is strongly clavate in the female (Plate XXXIV, fig. b). The elytra are widely overlapping and widely rounded at the tip in the macropterous form (Plate XXXIV, fig. a) and in the short-winged form (Plate XXXIV, fig. b) they are only slightly overlapping, acute, and distinctly divaricate at the apex. The third segment of the antennæ is

somewhat variable in length, also in the degree of enlargement towards its tip. According to the type-figure, the antennal characters, of *uniformis* (length and degree of enlargement towards tip) are nearly intermediate between *clavata* and *lurida*. On account of page-priority, *clavata* should be considered the specific name of these forms. *M. obscura* Parshley (= *M. lurida* Stål), Psyche, Vol. XXIII, 1916, p. 167, is also a synonym of *M. clavata* Stål.

5. **Acalypta thomsoni** Stål. (Pl. XXXIV, fig. d.)

Acalypta Thomsonii STÅL, Enum. Hemip., III, 1873, p. 122 (Carolina meridionalis, ♂, ♀; Mus. Holm.).

The type of this species is figured on Plate XXXIV, the third and fourth antennal segments being wanting. *A. thomsoni*, as determined by various American hemipterists, differs from the figure of Stål's type in having the lateral carinæ of the pronotum quite distinct, two porrect spines on the head, and in the shape of the anterior margin of the paranota.

6. **Acanthocheila armigera** Stål.

Monanthia (*Acanthocheila*) *armigera* STÅL, Rio Hemip., I, 1860, p. 61 (Rio Janeiro, ♂, ♀; Mus. Holm. et Stål).

Monanthia (*Acanthocheila*) *spinulifera* STÅL, Rio Hemip., I, 1860, 2, p. 61 (Rio Janeiro, ♂, ♀; Mus. Holm. et Stål).

Champion, *Biol. Centr.-Amer., Rhynch.*, Vol. II, 1898, p. 28, figs. 19, 19a, 20, 20a, discusses the variations of the species and compares them with Stål's type. *A. armigera* is common in Mexico, Central America, the West Indies, and in the northern part of South America. My series of specimens show all the variations in structure, size, and color described by Champion. *A. spinulifera* Stål from Rio Janeiro equals *A. armigera* Stål (*Cf.* Champion, Trans. Ent. Soc. Lond., 1898, p. 60).

7. **Gargaphia patricia** (Stål).

Monanthia (*Phyllontochila*) *patricia* STÅL, Stett. Ent. Zeit, 1862, p. 324, (Mexico; Mus. Holm.).

Gargaphia patricia STÅL, Enum. Hemip., III, 1873, p. 125 (Mexico; Mus. Holm.).

This common and widely distributed lace-bug was figured by Champion, *Biol. Centr.-Amer., Rhynch.*, Vol. II, 1897, p. 9, Pl. I, figs. 12 and 12a.

8. **Gargaphia nigrinervis** Stål.

Gargaphia nigrinervis STÅL, Enum. Hemip., III, 1873, p. 125 (Bogotá, ♂; Mus. Holm.).

A typical example of this species is figured by Champion, *Biol. Centr.-Amer., Rhynch.*, Vol. II, 1897, p. 10, Pl. I, figs. 13 and 13a.

9. **Gargaphia tiliæ** Walsh.

Gargaphia fasciata STÅL, Enum. Hemip., III, 1873, p. 125 (Illinois, ♂; Mus. Holm.).

G. fasciata Stål is a color-variation of *G. tiliæ* Walsh (Proc. Ent. Soc. Phila., III, 1864, p. 408). It is the common tingitid of the linden and is widely distributed in the United States east of the Rocky Mountains. Gibson, *Trans. Amer. Ent. Soc.*, XIV, 1819, p. 195, erroneously treated *G. fasciata* Stål as a distinct species. *G. tiliæ* is a common and well-known species.

10. **Corythaica monacha** (Stål).

Tingis monacha STÅL, Rio Hemip., I, 1860, p. 64 (Rio Janeiro, ♂, ♀; Mus. Holm. et Stål).

This species has been confused in the literature with *C. planaris* Uhler. Drake and Bruner, *Memorias de la Sociedad Cubana de Historia Natural "Felipe Poey,"* Vol. VI, 1924, p. 151, pointed out the difference between the two species (based on cotypes of both species) and raised *planaris* to specific rank. *C. monacha* Stål has not been examined by the author from the West Indies or Central America. Published records of *C. monacha* Stål from the West Indies should be treated as *C. planaris* Uhler. Many specimens of *C. monacha* Stål are at hand from the northern part of South America. *C. planaris* Uhler is the common tingitid of the egg-plant in the West Indies; it also occurs in the northern part of South America. The synonomy of these two species has been listed by Drake and Bruner.

11. **Corythucha fuscigera** (Stål).

Tingis fuscigera STÅL, Stett. Ent. Zeit., XXIII, 1862, p. 325 (Mexico; Mus. Holm.).
Corythucha fuscigera STÅL, Enum. Hemip., III, 1873, p. 122 (Mexico; Mus. Holm.).

Although Champion, *Biol. Centr.-Amer., Rhynch.*, Vol. II, 1897, p. 7, Pl. I, figs. 6 and 6a, published an excellent figure of *C. fuscigera*,

corresponding with Stål's type, the species has been much confused by American workers. Gibson, *Trans. Amer. Ent. Soc.*, Vol. XLIV, 1918, p. 78, confounded the true *fuscigera* Stål from Arizona (the only specimen of *C. fuscigera* before Gibson from the United States), Mexico, and Central America with several other species. *C. fuscigera* Gibson (not Stål) from the United States equals (in part) *C. pruni* Osborn and Drake, *C. associata* Osborn and Drake, *C. æsculi* Osborn and Drake, *C. padi* Drake, *C. juglandis* Fitch, and *C. fuscigera* Stål (Arizona). Van Duzee, *Cat. Hemip. Amer. N. Mex.*, 1917, p. 213, failed to separate *C. distincta* Osborn and Drake, and *C. obliqua* Osborn and Drake from the true *fuscigera* Stål and wrongly placed *obliqua*, a very distinct species, as a synonym of *fuscigera*. *C. fuscigera* Gillette and Baker, *Hemip., Colo.*, 1895, p. 57, is *C. distincta* Osborn and Drake. Uhler determined both *C. distincta* and *C. obliqua* as *C. fuscigera*. It is practically impossible to separate these species in the published records from the United States. The writer has only seen specimens of *C. fuscigera* Stål from Arizona (north of Mexico) but it undoubtedly occurs elsewhere on the southern border of the United States.

12. **Corythucha decens** (Stål).

Tingis decens STÅL, Stett. Ent. Zeit., XXIII, 1862, p. 324 (Mexico; Mus. Holm.)
Corythucha decens STÅL, Enum. Hemip., III, 1873, p. 123 (Mexico, Tabasco; Mus. Holm.).

This species has also been figured by Champion, *Biol. Centr.-Amer., Rhynch.*, Vol. II, 1897, p. 7, Pl. I, figs. 7 and 7a. Uhler's records of *C. decens* in the United States should probably be referred to *C. morrilli* Osborn and Drake. Van Duzee, *Cat. Hemip. Amer. N. Mex.*, 1917, p. 214, catalogues *C. decens* from Pennsylvania, the District of Columbia, Texas, and California. The records from Pennsylvania and the District of Columbia represent *C. marmorata* Uhler; the specimens from Texas and California are to be referred to *C. morrilli* Osborn and Drake. The true *C. decens* Stål has not been taken in the United States. The writer has examined typical specimens of *C. decens* from Central America, which agree with Champion's figure and it cannot easily be confused with *C. marmorata* or *C. morrilli*.

EXPLANATION OF PLATE XXXIV.

FIG. a. *Melanorhopala clavata* Stål, ♂, = *lurida* Stål (Type of *lurida* Stål).
FIG. b. *Melanorhopala clavata* Stål, ♀, Type.
FIG. c. *Melanorhopala clavata* Stål. (Type of *uniformis* Stål.)
FIG. d. *Acalypta thomsoni* Stål. Type.

(All figures greatly magnified.